

Levy Town Meeting: Affordable Housing Key to L.I.'s Hi-Tech Economy

Suffolk County Executive Steve Levy hosted a town meeting in the Hamilton Seminar Room on Friday, September 7, to discuss the role of affordable housing in the County's vision of Long Island as a high-tech hub.

Although most Suffolk County residents enjoy living on Long Island, surveys show that about 67-69 percent of people ages 18-34 are seriously considering leaving during the next five years, Levy said.

"If so many people want to call Long Island home," he said, "why is it that so many of them are thinking of packing up and leaving? The answer is affordability, or lack thereof. It's about high taxes and high housing costs."

The increasing gap between housing costs and wage levels is leading to a Suffolk County "brain drain" that must be reversed in order to attract high-

tech and high-paying jobs, lower taxes, and grow the economy, Levy said.

"You are part of that whole package," Levy told the audience. "The type of groundbreaking work we do here at Brookhaven Lab can only be sustained if the great minds want to remain here and have the ability to remain here."

As part of the solution, Levy said, the County is proposing an affordable housing project in Yaphank that would include a sports and entertainment venue, an industrial park to promote jobs in alternative en-

ergy, wireless technology, and homeland security, and 1,000 units of one- and two-bedroom starter housing meant for young professionals.

To watch Levy's entire talk, go to <http://intranet.bnl.gov/video/employee.asp>. — Kendra Snyder



Joseph Rubino D1790907

Ozaki, Harrison Awarded by IEEE

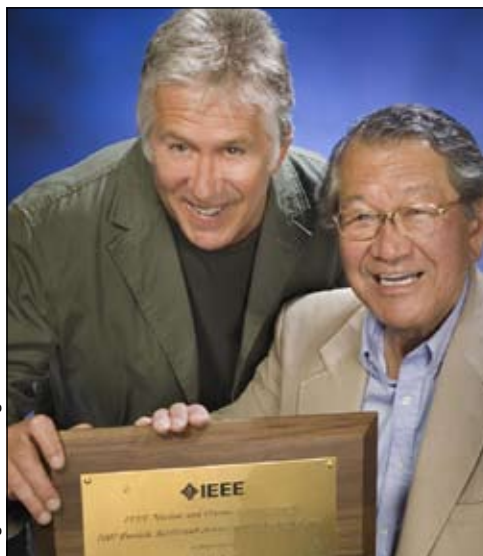
Satoshi Ozaki and Michael Harrison, physicist-administrators at BNL who led the decade-long development and construction of the Lab's world-class particle accelerator, the Relativistic Heavy Ion Collider (RHIC), were honored with the 2007 Particle Accelerator Science & Technology Award. Sponsored by the Nuclear & Plasma Sciences Society of the Institute of Electrical & Electronics Engineers (IEEE), the award consists of \$2,000, shared equally between the two recipients, and a plaque for each recipient with the inscription: "For leadership in the successful design and construction of the Relativistic Heavy Ion Collider."

"It is rewarding to receive this recognition from IEEE," said Ozaki. "RHIC has exceeded our original expectations. It is producing outstanding physics results both in the relativistic heavy ion and spin

physics programs. I would like to thank everyone who made RHIC possible, but, in particular, Nobel Laureate T.D. Lee from Columbia University, who thought of the original idea of physics at RHIC, and former Brookhaven Lab Director Nicholas Samios and his colleagues, who brought the idea to realization. I also thank those who gave us strong and steady support throughout the project, including the DOE Office of Nuclear Physics."

"I am delighted to receive this award," said Harrison.

"This project involved not only many scientists, engineers, technicians and support staff at Brookhaven, but also several successful partnerships with industry. All helped to achieve the goal of bringing RHIC on line on



Roger Stoutenburg D0080707

Michael Harrison (left) and Satoshi Ozaki

time and within budget. RHIC has made possible new horizons in physics, and I am confident that many more important discoveries will be made at the world-class accelerator."

(continued on page 2)

Zinc Transporter Protein Structure Deciphered

Dax Fu and Min Lu of the Biology Department have deciphered the atomic-level structure of a cell-membrane protein that regulates the movement of zinc ions into and out of cells. Details of the structure may help scientists better understand the crucial role zinc plays in many biological process, from nerve cell communication to insulin regulation to photosynthesis. The findings also have implications for the production of bioenergy and for improving microbial cells' ability to modify or remove metal contaminants from the environment.

The work was funded by the National Institutes of Health and by BNL's Biology Department, which receives funding from the Offices of Basic Energy Sciences and Biological and Environmental Research within DOE's Office of Science, and was published online by the journal *Science* on Thursday, August 23, 2007.

The scientists studied a zinc transporter protein taken from the common bacterium *E. coli*. "This protein is structurally and functionally related to zinc transporter proteins found in human cells and plants, and will therefore provide insight into the role of zinc and these transporter proteins in a variety of human and ecological situations," said Fu.

Said Lu, "In addition to providing information about the specific function of a zinc transporter protein, our structure provides a more general conceptual framework for understanding the selective binding and energized movement of metal ions across membranes."

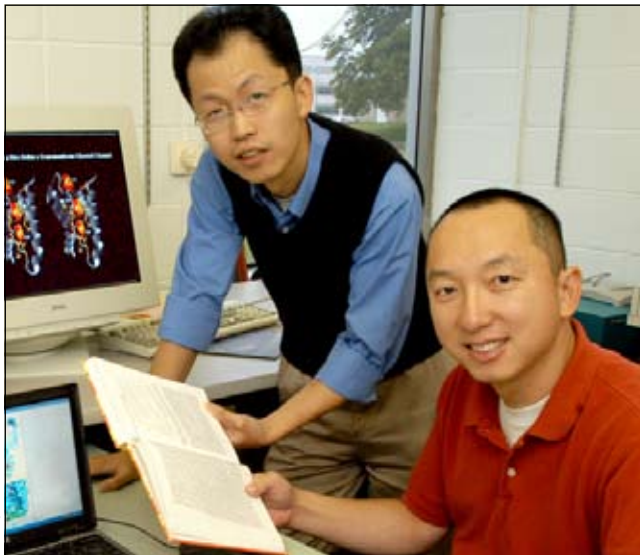
This understanding could help reveal, for example, how microbes maintain a proper balance of metals, and may suggest new ways to improve their ability to remove or sequester heavy metal contaminants in the environment. It could also assist scientists attempting to generate clean, renewable forms of bioenergy by mimicking the steps of photosynthesis — a process that depends on a delicate balance of metals as cofactors in the conversion of sunlight to energy.

Background

Zinc is essential for cellular growth and differentiation, and is often a structural or catalytic component of proteins and enzymes.

It is involved in myriad processes, from gene expression to immune function. It modulates the activity of chemical messengers in the brain, and helps to regulate the release of insulin from pancreatic cells in response to changing blood sugar levels.

(continued on page 2)



Joseph Rubino D02070807

Dax Fu (seated) and Min Lu

This research has relevance to seizures, diabetes, contaminant cleanup, bioenergy

Steven Vigdor Named ALD For Nuclear & Particle Physics

Steven Vigdor, a former physics professor at Indiana University, has been named BNL's Associate Laboratory Director for Nuclear & Particle Physics, effective September 1.

In his new position, Vigdor is responsible for overseeing a \$180-million annual budget and about 600 employees. The directorate includes BNL's Collider-Accelerator Department, Physics Department, Instrumentation Division, and Superconducting Magnet Division.



Joseph Rubino D0090807

"This is an exciting time for physics, and Brookhaven Lab has maintained its forefront position in the physics community," said Vigdor. "The discovery of a 'perfect' liquid — a liquid with virtually no viscosity — at the Lab's Relativistic Heavy Ion Collider [RHIC] has opened up a new field of nuclear physics that has profound possibilities. Also, major advances in particle physics have brought the field to the threshold of a new golden era. I anticipate that Brookhaven Lab will continue to have a strong role in both of these areas of physics."

About 1,000 physicists from around the world perform research at RHIC, the Lab's largest accelerator, which is used for both heavy ion and spin physics programs. Planned future upgrades to RHIC would open up new areas of exploration about the fundamental nature of matter in terms of its most basic constituents, quarks and gluons.

BNL physicists are involved in several other major physics projects around the world. For example, they have played a major part in building the ATLAS detector for the Large Hadron Collider at CERN, the world's largest physics laboratory, near Geneva, Switzerland. Brookhaven is the headquarters for the 33 U.S. institutions contributing to the ATLAS project.

Brookhaven scientists also have a long and distinguished history of research on neutrinos, elusive particles that are produced in nuclear reactions, such as those that power the sun. In fact, BNL's Raymond Davis Jr. of the Chemistry Department won the 2002 Nobel Prize in Physics for being the first scientist to detect solar neutrinos in research that spanned from 1967-1985 at the Homestake Mine in South Dakota. BNL researchers plan to continue their studies of neutrinos at the Daya Bay reactor in China and in a possible new experiment to be mounted in the Deep Underground Science & Engineering Laboratory at the Homestake Mine. Expected to be completed in 2011, the newly renovated

(continued on page 2)

BNL Students Win Poster Awards At 2007 Particle Accelerator Conference in Albuquerque, NM



Joseph Rubino D0190807

Two graduate students from the Collider-Accelerator Department, Jun Tamura (left) and Fanglei Lin, have won student poster awards at the Particle Accelerator Conference in Albuquerque, NM. (See story on page 2)

CALENDAR

OF LABORATORY EVENTS

- The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- Events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermediate, Advanced classes. Various times. All are welcome. Learn English, make friends. See www.bnl.gov/esol/schedule. html for schedule. Jen Lynch, Ext. 4894

Mondays: Playgroup

10 a.m.-noon. Rec. Hall. All welcome.

Mondays: BNL Social & Cultural Club

Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov

Mondays: Pilates

Noon-1 p.m. Rec. Hall. Ext. 5090

Mondays & Wednesdays: Pilates

5:15-6:15 p.m. Rec. Hall. Ext. 5090

Mondays: Jiu Jitsu Club

6:30-7:30 p.m. B'haven Center. All levels, ages 6 & up. \$10/class. Tom, Ext. 4556

Mondays & Thursdays: Kickboxing

\$5 per class. Noon-1 p.m. in the gym. Registration is required. Ext. 8481

Mon., Thurs., & Fri.: Tai Chi

Noon-1 p.m., B'haven Center North Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov

Tue., Thurs. & Fri.: Ving Tsun Kung Fu

Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, bradley@bnl.gov

Tues. & Thurs.: Jazzercise

Noon, Rec. Hall. Ext. 5090.

Tuesdays: Hospitality Coffee

10:30 a.m.-noon, Rec. Hall lounge. All welcome. Ext. 5090

Tuesdays: BNL Music Club

Noon, B'haven Center, North Room. Come hear live music. Joe Vignola, Ext. 3846

Tuesday & Thursday: Aerobic Fitness

5:15 p.m., Rec. Hall. 10 classes for \$40 or \$5 per class. Pat Flood, Ext. 7866, flood@bnl.gov

Tuesday & Thursday: Aqua Aerobics

5:30-6:30 p.m., Pool. Ext. 5090

Tuesdays: Toastmasters

1st and 3rd Tuesday of each month, 5:30 p.m., Bldg. 463, Room 160. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmstrs/

Tue., Wed. & Thu: Rec Hall Activities

5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Hall. Infant/toddler drop-in event. Parents meet while children play. Petra Adams, 821-9238.

Wednesdays: Ballroom Dance Class

B'haven Center, N. Ballroom. Instructor: Giny Rae. Starts September 12 and 19. Ext. 3845.

Wednesdays: Weight Watchers

Noon-1 p.m. Michael Thorn, Ext. 8612

Wednesdays: Yoga

Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov

Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholz, Ext. 2027

Fridays: Family Swim Night

5-8 p.m. BNL Pool. \$5 per family

Fridays: BNL Social & Cultural Club

Noon-1 p.m., B'haven Center, South Room, free beginners dance lessons. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov

CIGNA: Tuesdays, Bldg. 400

A CIGNA Healthcare representative will be on site in Human Resources, Bldg. 400, on Tuesdays, to assist with any claims issues that you have been unable to resolve yourself. Janice Petgrave will be available for 30-minute meetings, by appointment only, 10 a.m.-1 p.m. Bring all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

Steven Vigdor Named ALD *(cont'd)*

laboratory will be some 8,000 feet underground. It will be the site of experiments in nuclear and particle physics, as well as other fields.

Steven Vigdor received his B.S. from City College of New York and his Ph.D. from the University of Wisconsin-Madison, earning both degrees in physics. He has 34 years of experience in experimental nuclear physics, conducting research at several DOE national labs, including Los Alamos, Argonne, and Lawrence Berkeley. He also worked at BNL's STAR experiment. STAR, which stands for Solenoidal Tracker at RHIC, is one of four detectors at the Lab's collider that tracks and analyzes thousands of particles that may be produced in each heavy-ion collision. Also, Vigdor served as deputy spokesperson for the 500-member STAR collaboration, 2002-2005. He was the principal author of STAR's white paper, the extensive report on the first three years of RHIC's heavy-ion research results, which lays out the discovery of the "perfect" liquid.

A physics professor at Indiana University for 31 years, Vigdor has served as chair of the

Ozaki, Harrison Awarded by IEEE *(cont'd)*

About 500 people were involved in the design and construction of RHIC, commissioned in 1999. About 1,000 physicists from around the world run experiments at RHIC, colliding very high energy subatomic particles known as heavy ions head-on to study the type of matter that existed a millionth of a second after the Big Bang. In 2005, physicists at RHIC discovered a "perfect liquid," a type of matter that has not existed since the beginning of the universe. This is a feat that crossed into a new frontier of scientific exploration.

In addition, a polarized proton capability was brought to RHIC with funding support from the RIKEN Institute of Japan. Polarized protons are protons that spin in the same direction. Last year, RHIC collided high-energy beams of polarized protons — the world's first and only accelerator to do so. Scientists at RHIC study protons, which spin in a way that is similar to the Earth spinning on its axis, to solve the mystery of what causes proton spin.

— Diane Greenberg

For more information on the two honorees, see www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=07-81.

One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Tuesday, 9/18, and Thursday, 9/27 to answer employees' questions about their financial matters. The consultant will help you: understand the importance of protecting assets against inflation, find the right allocation mix for you, and more. For an appointment, call Suzanne Leone, (866) 842-2053, Ext. 4601.

Particle Accelerator Conference 2007: Two BNL Students Win Poster Awards

Two graduate students from the Collider-Accelerator Department (C-A), Jun Tamura and Fanglei Lin, have won student poster awards at the Particle Accelerator Conference (PAC07) in Albuquerque, NM.

Jun Tamura received a first-place award of \$500 from the European Physical Society Accelerator Group for his poster titled "Use of Solidified Gas Target to Laser Ion Source." He performed his research for this paper under the supervision of Masahiro Okamura, C-A.

Tamura explained that laser ion sources for accelerators usually make beams from solid materials, but he was able to use a laser source to create ions from an element that is a gas at room temperature. To do so, he solidified neon gas by cooling it to four degrees Kelvin. Then he irradiated the neon with a laser pulse and generated neon plasma, which can be used as a source for an ion beam in a linear accelerator.

"Laser ion sources can generate highly ionized ions and high-intensity beams," Tamura said. "My collaborators and I were able to generate stable neon plasma for this purpose. Our new method can be applied to other gaseous species for laser ion sources."

According to Tamura, more research needs to be done to increase the repetition rate of the laser irradiation because some accelerator facilities need very frequent beam injection to operate efficiently. For example, Brookhaven's Booster Synchrotron for the Alternating Gradient Synchrotron (AGS) needs a laser repetition rate of five cycles per second (Hz) to operate smoothly. Other accelerators may require only one Hz, which is the rate that Tamura and his colleagues achieved using neon plasma.

Tamura started his studies at BNL in September 2006 and will continue his research at the Lab for another two years. He hopes to receive his Ph.D. at

Zinc Transporter Protein Structure *(cont'd)*

But too much zinc can be toxic. For instance, excessive zinc may cause seizures and play a role in the deposition of amyloid protein plaques in Alzheimer's disease.

Zinc transporter proteins are one of the major regulators of zinc levels. These proteins lie partially within the cellular membrane, moving zinc ions across this otherwise impermeable barrier to maintain an optimal balance, or homeostasis.

Sometimes the transporter proteins push zinc out of cells or lock it up in vesicles within the cells. In the brain, the transporter proteins reabsorb excess zinc from extracellular spaces called synapses. Failure of this reuptake mechanism has been identified as one of the leading causes of seizures. Another human zinc transporter involved in regulating insulin release has recently been identified as a major risk factor for type-2 diabetes — and is now a hot target for drug development.

While the location of transporter proteins within the membrane makes them ideally situated for their diverse functions, it also makes them particularly difficult to study. This is because, chemically, membrane proteins are similar to grease molecules; they tend to clump together in aqueous solution. The challenge is to keep indi-

vidual zinc transporter proteins isolated from one another as well as from other proteins. The purified proteins then have to be put back together in an orderly manner into a three-dimensional crystal lattice for structural analysis.

"After more than seven years of intensive efforts, we have finally learned how to crystallize the zinc transporter," said Fu.

Since YiiP crystals are unusually small (the size of a needle tip) and fragile, the scientists had to manually position each of thousands of YiiP crystals in the center of the x-ray beam at the National Synchrotron Light Source to maximize exposure.

"This project would have been impossible without the help of Anand Saxena, Annie Héroux, and Alexei Soares at NSLS beamline X25," said Fu.

The Y-shaped YiiP structure suggests that the portion of the protein that lies within the cytoplasm may receive zinc ions inside the cell and deliver them to a water-filled cavity where the ions are then transported across the membrane via a protein conformational change.

Brookhaven Science Associates has filed a patent application for models of mammalian zinc transporters and their use based on this newly derived structure.

— Karen McNulty Walsh

Flu Vaccine for Eligible Employees

The influenza (flu) vaccine will be offered to all full-time and part-time eligible Lab employees at the Occupational Medicine Clinic beginning Tuesday, September 18, through Friday, September 28. If you are unavailable during this time frame, flu shots will be available through December, or as long as supply lasts.

Please have your BNL I.D. badge available when you come for your flu shot. Shots will be available at the Clinic, Bldg. 490. The schedule will be as follows:

9:30 a.m. — 10:45 a.m..... Last Names T to Z
10:45 a.m. — 11:45 a.m..... Last Names N to S
1 p.m. — 2:30 p.m..... Last Names H to M
2:30 p.m. — 4 p.m..... Last Names A to G

To speed up the process, wear a short sleeve shirt if at all possible. Also, do not call the Clinic to ask to receive your shot early.

Retirees, students, contractors, guests and employee family members should obtain flu shots from their personal physicians.

If you have any questions regarding the flu vaccine, call Ext. 3670 and ask to speak with a nurse.

the Tokyo Institute of Technology in 2010.

Fanglei Lin received an honorable mention award from the Institute of Electrical and Electronics Engineers Nuclear and Plasma Sciences Society for her poster, titled "Investigation of Residual Vertical Intrinsic Resonances with Dual Partial Siberian Snakes in the AGS."

The Relativistic Heavy Ion Collider's (RHIC) spin physics program requires that 70 percent of the polarized proton beam be stored at high energies after extraction from the AGS. However, the proton's spin interferes with the magnetic fields in the AGS, resulting in the proton beam being depolarized during acceleration. To maintain the polarization, two special magnets called partial Siberian snakes have been employed in the AGS 2006 run.

"The two partial Siberian snakes in the AGS improve po-

larization, but there is still a 20 percent loss," Lin said. "My paper deals with one of the causes of the depolarization of the proton beam and how to overcome it."

Under the supervision of Mei Bai, Lin has found that two uncorrected weak intrinsic resonances — a spin-depolarizing mechanism that is due to the particle's oscillation around a center orbit while it travels along the accelerator — can cause polarization loss. Lin's research shows that the beam has a four percent polarization loss after crossing the two resonances. Lin has proposed reducing the polarization loss by changing quadrupole magnet settings to effectively increase the speed of polarized protons crossing these two intrinsic resonances.

Lin is a student in the Physics Department at Indiana University. At the end of August, she defended her postdoctoral thesis, based on her work at Brookhaven after her two-and-a-half-year research stint at the Laboratory. — Diane Greenberg

Then & Now — Patent Royalties, Some History

Today, if you search for “thallium stress tests,” in Google, one of the resulting links you are offered will tell you that “This is a type of nuclear scanning test or myocardial perfusion imaging test. It shows how well blood flows to the heart muscle . . . It is useful to determine: the extent of a coronary artery blockage, the prognosis of patients who have suffered a heart attack . . . etc.”

In an article titled “New Radioisotope Probes Heart,” the March 7, 1975, Brookhaven Bulletin gives the beginning of this story, telling how BNL Department of Applied Science (DAS) scientists Elliot Lebowitz and Margaret Greene used the 60-inch cyclotron, an accelerator operated by the Chemistry Department, to develop a method for making thallium-201. This new radioisotope could be injected into heart-attack patients to give information that improved diagnosis and treatment decisions. Thallium-201 had many advantages that made it easier to use than other available tracers, and by 1975 it was already being manufactured commercially by two pharmaceutical companies using the BNL-developed techniques.

But, although Lebowitz and Greene were granted the patent in 1976, and the process has helped save countless patients right up to today, the two inventors and the interdisciplinary BNL Nuclear Medicine Program, coordinated by Harold Atkins of Medical, which included DAS, Chemistry, Medical, and the Instrumentation Division, received no direct financial benefit from the work.

It was not until 1984 that the situation changed. An amendment to Public Law 96-517 (see Brookhaven Bulletin, November 30, 1984) allowed non-profit government contractors that operate government owned-contractor operated facilities to retain title to their own inventions. The change was primarily made to simplify the patent process so that U.S. industry could expect a smoother



BNL’s Margaret Greene and Elliot Lebowitz, who patented a method for making thallium-201 in the 1970s, inventory commercially manufactured samples of their thallium-201, shipped to BNL for evaluation and use.

“tech transfer” process that would be more commercially attractive. In addition, the inventors themselves received a certain share of the royalties. The legal procedures took some time, but eventually the Lab’s then managers, Associated Universities, Inc., (AUI) set the new policy in place.

As a consequence, on July 15, 1994, the Bulletin reported the first significant distribution of patent royalties to BNL departments: AUI made \$250,000 available to the Biology, Medical, and DAS departments to fund new scientific projects, additional graduate students, and educational efforts. The bulk of the funds at that time came from two patents. One invention patented in 1988 by a group from Medical, led by Suresh Srivastava and including Rita Straub and Powell Richards, resulted in a blood cell-labeling kit by Mallinckrodt Medical, Inc., that hit the medical marketplace in June 1991 and by 1994 had sold about 600,000 kits. Another BNL patent that generated even more revenue was a genetically engineered T7 gene-expression system invented by a group of former and then-current Biology Department researchers who included William Studier.

Many more BNL inventions have been patented since those first royalties

were distributed, far too many to describe here. The story of one of the latest patent applications, relating to zinc research at BNL and recently reported in *Science*, starts on page one. Under Brookhaven Science Associates, BNL’s managers since 1998, the Lab’s Office of Intellectual Property & Sponsored Research (OIPSR) now reports 200 inventors on staff at BNL, who have produced more than 21 patent applications and 11 patents in the 2007 fiscal year, adding to the 102 applications and 93 patents that have been issued to BNL inventors since 2002. For more information on BNL and the patenting process, see www.bnl.gov/techxfer/. — Liz Seubert

Walkers Wanted for Cancer Research Walk, 9/30

The annual 4/6 kilometer walk through historic areas of Stony Brook Village to raise funds for breast and prostate cancer research will be held on Sunday, September 30. BNL is gathering a team to support this event. A brochure with the registration form, walker sponsor sheet, and driving directions is available at www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty or by contacting Joyce Fortunato, Ext. 4229 or mortimer@bnl.gov, or Stasia Ann Scocca, Ext. 3979 or scocca@bnl.gov. Participants are responsible for their registration and fee of \$20 or sponsorship.

Chigger/Tick Larvae Alert

Since August, the Occupational Medicine Clinic (OMC) has seen and received reports of individuals with intensely itchy red bites on their ankles and elsewhere on their bodies after walking or standing in grass or brush on the BNL site. The responsible bugs, which are barely visible to the naked eye and move very quickly, are believed to be larval (immature) arthropods — both chiggers (red) and tick larvae (brown or black). The larvae are widespread on site. They will remain a problem until the nights get cold.

To avoid bites, take preventive measures:

- **Pedestrians:** stick to sidewalks
- **Outdoor workers:** wear dense-woven clothes, nylon long-sleeved shirts, seamless coveralls, and rubber boots with pants tucked in. Eliminate gaps that would allow larvae to access the skin
- **Apply insect repellents** containing permethrin or DEET around pants cuffs and work boots, according to directions. BNL Central Stores stocks K70766 — Deep Woods Off for skin and clothing treatment (containing DEET), and K70764 — Sawyer Clothing Treatment containing permethrin
- **When work is complete,** all clothing should be promptly washed in hot water and detergent, or sealed in plastic bags until it can be washed. Use duct tape to remove visible larvae from pants
- **After working outside,** immediately shower and wash all areas of potential skin exposure and bites with soap and water.

Employees should come to OMC if they believe they have gotten tick or chigger bites on site. Employees with bites from off site can also come to OMC for first aid and guidance, or can see their own physician or practitioner.

Treatment consists mainly of controlling itch through ointments of benzocaine, hydrocortisone, calamine lotion, Chigaid, or “New Skin” liquid bandage. Oral Benadryl (antihistamine) can be helpful but should not be used at work or before driving or operating machinery since it causes drowsiness. Individuals with a more severe allergic-type reaction, with symptoms such as skin swelling, need prompt medical attention. Tick larvae generally do not carry infections, including Lyme disease. However, scratching the bites can cause secondary infections—symptoms consisting of pus or increasing redness and pain. Seek medical attention if such signs appear. For more information, go to <http://ohioline.osu.edu/hyg-fact/2000/2100.html>.

BNL Offers CPR/AED Training

Every year over 500,000 people die from cardiac arrest — and two out of three of these deaths occur before the victim reaches the hospital. Studies have repeatedly shown the importance of immediate bystander Cardio Pulmonary Resuscitation (CPR) and defibrillation within 3–5 minutes of collapse to improve survival from cardiac arrest. BNL now offers the American Heart Association’s (AHA) course in CPR. The course includes instruction in the use of the Automated External Defibrillators (AEDs) that are appearing around site. Trainees will receive an AHA card to show they are qualified in CPR and in operating an AED. Such a card from a nationally recognized organization is required to operate an AED here on site and also anywhere off site, outside a home setting. AEDs are so effective and simple to use that the law has recently been changed to allow the device to be purchased for home use without a doctor’s prescription.

BNL offers the course twice a month. Sign up on the Training web site, accessible from the BNL home page, in the left hand column under the heading “Human Resources.” For more information, contact Jim Nameth, Ext. 4766 or nameth@bnl.gov.

Defensive Driving Course in Two Parts, 9/20 & 27

The six-hour Defensive Driving (Point & Insurance Reduction) course will be held for BNL, BSA, and DOE employees, facility-users, and families, in two parts, on Thursdays 9/20 & 27, in the Brookhaven Center, 6 p.m.-9:15 p.m., at \$38/person. Preregistration is required: leave a message with Ed Sierra, 821-1013, including your phone number. For more information, call Sarah Wiley, Ext. 4207.

Inside Info Going Green, 9/20

Peter Pohlot from the Environmental & Waste Management Division is a panelist* and Jill Clough-Johnston from the Small Business Office is the workshop coordinator of a workshop entitled “Going Green” that will be held on Thursday, September 20, 5:30 -9 p.m. The workshop is part of a free seminar called “Helping Your Business Thrive,” which is being sponsored by and held at The Town of Brookhaven. Other panelists with Pohlot are: Gordian Raacke from Renewable Energy Long Island and John Kowalchuk from the Town of Brookhaven, Division of Waste Management.

All are welcome to attend the event and learn about the latest energy saving tips. For directions and/or information, call Clough-Johnston, Ext. 3173.

Arrivals & Departures

— Arrivals —

Eunmi Choi	C-AD
Robert Crowell.....	Chemistry
Mikhail Feygenson	CMP&MS
Susan Frank.....	CEGPA
Kristine Guido.....	Plant Eng.
Jennifer Kile.....	Physics
Richmond Loring.....	ITD
Moirra Raynor.....	HR&OMC
Mitchell Richards.....	Dir’s. Office
Jorge Romero.....	HR&OMC
Lisa Saum-Manning	NNS
Stephen Sawch	NSLS-II
Bernadette Uzzi.....	CEGPA
Lazaro Vazquez	ITD
Steven Vigdor	Dir’s. Office
Zhe Wang.....	Physics
Wei Wu	Env. Sci.
Yuhong Zhang.....	C-AD

— Departures —

Violet Bezler.....	Physics
Charles Brown.....	Plant Eng.
Kyle Cranmer	Physics
Bonnie Hulse	HR&OMC
David Moreels.....	Biology
Mwesigwa Musisi-Nkambwe..	C-AD
Andre Savici.....	CMP&MS
John Vaughn.....	NSLS
Feng Yuan	Physics
Hui Zhong	NSLS

CALENDAR

— THIS WEEKEND —

Saturday, 9/15

*Cody, ‘Louie’ in Concert

8 p.m. Berkner Hall. Commander Cody and his Band, and Professor “Louie” and the Crowmatix. Sponsored by the BNL Music Club, the event is open to the public. Buy tickets at \$25 each at the BERA Store or at the door on the night of the show. Visitors to the Lab age 16 and over must bring a photo ID.

— WEEK OF 9/17 —

Monday, 9/17

Talk on Diabetes & the Diabetic Foot

Noon-1 p.m. Berkner Hall, Room B. All are welcome. Talk by Deborah Lamendola, J.T. Mather Memorial Hospital Wound Care Centers. See p. 4.

Wednesday, 9/19

Radisson Hotel Services

11 a.m.-2 p.m. Berkner Hall lobby. Stop by to learn from Radisson Hotel representatives about special rates and other services available. For more information, call Nick Wilson, 961-8292.

Tuesday, 9/20

*Defensive Driving Course, Part I

6-9:15 p.m. First half of course, second part on 9/27. \$38. To register, call Ed Sierra, 821-1013, leave a message. See notice below.

— WEEK OF 9/24 —

Wednesday, 9/26

*Talk on Optimal Sleep

Noon. Berkner Hall, Room B. Sponsored by Employee Assistance Manager Nancy Losinno, Brendan Duffy of the Sleep Disorders Center, St. Charles Hospital, who will talk on optimal sleep for apnea sufferers.” All are welcome. See p. 4.

Electrical Supply Tech Demo

10 a.m.-3 p.m. Berkner Hall lobby. Mid-Island Electrical Supply presents “A Day of Technology,” featuring Ethernet Connected Devices. Mid-Island & Rockwell engineers will demonstrate latest products from Rockwell Automation, Rosemount Controls, 80/20 Aluminum Products, more. Contact John Scarfoglio, 631-864-4242, Ext: 1325.

427th Brookhaven Lecture

4 p.m. Berkner Hall. Gene-Jack Wang, Medical Department, will talk on similarities between obesity and addiction. The talk is free and open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

Thursday, 9/27

Stanley Supply Equipment Demo

10:30 a.m.-5:30 p.m. Berkner Hall. Stanley Supply & Services vendors represent ACL Staticide, Agilent, ASG, Chemtronics, Cooper Tools Group, Desco, Excelta, Fluke, IAC Benches, JBC Tools USA, Jensen Tools, Lindstrom, Luxo, Metcal/OKi, Metro, Micro Care, OC White, Pomona, Protektive Pak, QRP gloves, Techspray, Vision Engineering, Weller, 3M and more. Bring your equipment to be tested, cleaned, inspected. Giveaways, prize drawings. Contact: Dennis De Vico, 866-505-7190 or ddevico@stanleyworks.com.

Sunday, 9/30

*BNL Walks for Cancer Research

8:30 a.m. Meet at Stony Brook Post Office. “Walk for Beauty.” See notice on this page and http://www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty.

— WEEK OF 10/1 —

Friday, 9/5

BSA Lecture: Mars Rover Mission

4 p.m. Berkner Hall. Steven Squyres, scientist from the Mars Exploration Rover Mission will speak on science results from the mission. All are welcome to this free talk.

Take Stock, Order Today, 9/14!
BNL warehouses close to take inventory for a week from end of business today, 9/14-21

The Procurement & Property Management (PPM) Division announces that the PeopleSoft inventory module will be unavailable and the warehouses will be closed for normal stock withdrawals from the end of business today, Friday, September 14, through Friday September 21, so that the annual physical inventory may be taken. Pick tickets submitted prior to 4 p.m. today, September 14, will be filled. During the period of closure, Mary Ellen Meier, Ext. 2979, will temporarily handle liquid nitrogen and helium requirements manually. Emergency stock requests should be directed to Ron Ondrovic, Ext. 4553, or George Dioguardo, Ext. 2597.

Volleyball News

For its 2007-2008 season, the BERA Volleyball League resumes play on Monday, October 8. The league offers teams for players of every ability and skill level, so come and join in the fun! All players are invited to get warmed up for the season by playing open volleyball in the gym on Monday and Wednesday nights.

Volleyball Captains’ Meeting, 9/19

Captains interested in fielding teams for the league should attend the captains’ meeting on Wednesday, September 19, at noon in Berkner Hall, Room A. Bring a signed roster form with you. For more information, visit the league’s web site at www.vb.bnl.gov, or contact Marie Van Buren, Ext. 4727 or vanburen@bnl.gov; or Travis Shrey, Ext. 7451 or shrey@bnl.gov.

Living Better With Diabetes Talk, 9/17

A talk on “Diabetic Neuropathy & the Diabetic Foot, Prevention & Treatment” will be given by Deborah Lamendola, Clinical Manager, John T. Mather Memorial Hospital Wound Care Centers, on Monday, September 17, noon-1 p.m. in Berkner Hall, Room B.

All are invited to attend this educational session on the neurological concerns and complications in diabetes. Bring questions. There will be a drawing for educational books. Registration is required. To register, contact Michael Thorn, Ext. 8612 or mthorn@bnl.gov. For more diabetes education resources, visit the Health Promotion website at www.bnl.gov/HR/OCCMED/HPP.asp.

Classified
Advertisements

Placement Notices

The Lab’s placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

SCIENTIFIC STAFF POSITION (ASSISTANT / ASSOCIATE LEVEL – PROJECT APPOINTMENT) – Requires a Ph.D. in physical sciences discipline and two years post-Ph.D. experience. Experience working at a synchrotron radiation beamline is essential. Experience in the use of synchrotron radiation beamline performance simulation codes and VUV and x-ray beam intensity and resolution measurement techniques is highly desirable. Successful candidate will be responsible for measuring the performances of synchrotron radiation beamlines at NSLS through appropriate tests. The test results will be compared to simulations carried out by the successful candidate, as well as with references to known standards. Working together with NSLS beamline scientist and accelerator physics staff, the successful candidate will make recommendations for improving and maintaining the performances of beamlines, and when appropriate, will help to implement them. The level of the position will be based on the background and experience of the selected candidate. Under the direction of L. Berman, National Synchrotron Light Source. Send CV to berman@bnl.gov, referring to Position No. KH 3272.

POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in biochemistry or chemical engineering and a publication record in international journals. Experience in two or more of the following areas are preferred: modeling of metabolic networks, plant biochemistry, systems biology, and mass spectrometry. Skills in programming and using mathematics

software (MatLab) are desirable. The position involves flux analysis and modeling of plant metabolism. For more information regarding current research projects: <http://www.biology.bnl.gov/plantbio/schwender.html>. Under the direction of J. Schwender, Biology Department. Send CV to felicia@bnl.gov, referring to Position No. FH 3904.

POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in physics, chemistry or materials science. Experience in vapor, solution, or electrochemical growth of metal and semiconductor nanostructures (nanoparticles, nanorods, nanowires) is desired, as well as experience in characterization methods such as scanning or transmission electron microscopy, and in electrical transport measurements. Research will focus on the development of new approaches for synthesizing low-dimensional structures by vapor transport and solution-based growth methods. Opportunities for studying growth and processing by low energy microscopy also exist for the proper candidate. Under the direction of P. Sutter, Center for Functional Nanomaterials. Send CV to felicia@bnl.gov, referring to Position No. FH 4015.

TECHNICAL SPECIALIST (ELECTRICAL) (T-2) – Requires an AAS degree in electrical engineering technology or equivalent experience, plus at least four years of relevant work experience including maintenance and troubleshooting of complex electronic, electrical, and mechanical systems. Experience with power supplies and analog/digital electronics, programmable logic controllers (PLC’s) and basic computer knowledge is desirable. Must be familiar with standard test and measurement equipment, such as function generators, oscilloscopes, multi-meters, and spectrum analyzers. Basic machine shop skills are a plus. Must be able to repair, modify, and build electrical/electronic systems from schematic drawings and assemble chassis using basic mechanical fabrication techniques. Must be self-motivated, able to work with minimum supervision, and have good communication skills. Must be available for system repairs off hours as required. Collider-Accelerator Department. Send resume to tbuck@bnl.gov, referring to Position No. TB 4640.

PRINCIPAL TECHNICIAN (TW-4) - Requires AAS degree in electrical engineering technology and at least 2 years related experience or equivalent. Knowledge of analog circuit analysis troubleshooting and repair are essential. Must be able to work from electrical schematics. Must be familiar with standard test and measurement equipment, such as function generators, oscilloscopes, multi-meters. Experience working with high voltage power supplies and high power RF experience is preferred. Must be available for system repair off hours as required. Collider-Accelerator Department. Send resume to tbuck@bnl.gov, referring to Position No. TB 4641.

Concert: Commander Cody, Professor ‘Louie,’ 9/15

Tomorrow, Saturday, September 15, at 8 p.m. in Berkner Hall, Commander Cody and his Band will perform. Cody, whose first great hits included “Hot Rod Lincoln” in 1972, played at that time along with the Eagles, the Doors, and the Grateful Dead. He and his band will be joined on stage by Professor “Louie” and the Crow-matix, who play country, folk, and rock and roll.

Sponsored by the BNL Music Club, the event is open to the public. Buy tickets at \$25 each at the BERA Store until 3 p.m. today, or at the door the night of the show. Visitors to the Lab age 16 and over must bring a photo ID.

Talk on Optimal Sleep for Apnea Sufferers, 9/26

At noon on Wednesday, September 26, in Berkner Hall Room B, the Employee Assistance Program invites all (diagnosed) sleep apnea patients to hear Brendan Duffy, Coordinator of the Sleep Disorders Center at St. Charles Hospital speak on optimal sleep for apnea sufferers. Duffy has over 10 years’ experience with sleep technology including work at the Stony Brook Sleep Disorders Center prior to serving in his current position. Topics he will cover include suggestions to address common setbacks, remedies & troubleshooting ideas, do’s and don’ts, websites and support group information. Refreshments will be served. To register for the talk, send your name, Bldg. No., and phone number to Linda DiPierro, Bldg 490/OMC or dipierro@bnl.gov.

LIANS Dinner Meeting, 9/24

The next meeting of the Long Island Chapter of the American Nuclear Society (LIANS) will be held on Monday, September 24, when Paul Stankus of Oak Ridge National Laboratory’s Physics Division will talk on “The Really Big Picture: Cosmology in the 21st Century.” Stankus, who is presently working on experiments at BNL and at CERN, Switzerland, has also developed an interest in cosmology and astrophysics and leads a small Oak Ridge group collaborating in the Large Synoptic Survey.

The meeting will be held at Brick House Brewery and Restaurant, 67 W. Main St., Patchogue, (631) 447-2337. All are welcome to attend. Complimentary appetizers/cash bar will start at 6 p.m., dinner at 7 p.m., and Stankus’s talk at 8 p.m. The cost is \$25/person. Reserve by Friday, September 21, leaving a message with Arnie Aronson, Ext. 2606.

Motor Vehicles & Supplies

06 HONDA CRF 100 - great cond. pd./\$2800, \$1,900/neg. Jim, 413-1785.

05 MAZDA RX-8 - black int., a/t, sports tuned suspend, 18" wheels w/lg brakes. 7500 mi. \$22,500. Ext. 5665.

04 CHEVROLET SILVERADO 1500 LS - 8 cyl, 5.3L, 4wd, 295hp, 4dr 4spd, a/c, abs, c/c, p/b, p/s, p/w, p/l, tow pkg., am/fm/cd cap+bed li 41K mi. \$20,000. 793-4568.

04 AMERICAN IRON HORSE SLAMMER - 111 C.I. S&S, 6 spd, 240 rear tire, mint, 2,600 mi. \$21,000/neg. Mark, Ext. 2599.

02 JEEP GRAND CHEROKEE LTD - loaded, heated leather seats, Quadra Drive & prem. sound syst. w/10 disc CD changer. 82K mi. \$10,995. Carter, Ext. 7515 or 879-1811.

01 CADILLAC DEVILLE - fully loaded. 69K mi. \$12,000. 236-8632.

97 CHRYSLER TOWN & CNTRY - mini van, 6 cyl, a/c fr. & rear, abs, all pwr., c/c, lthr int, dual slidg drs. 90K mi. \$3,200/neg. 495-7853.

97 DODGE 1500 PICKUP - red, club cab short bed, 4wd, V8 5.9L, a/t, CD, bed lnr, tow pkg., a/c. 122K mi. \$5,500. 727-0911.

97 CHEVROLET VENTURE - mini van, V6 3.4l eng., a/c, p/s, p/l, p/w, abs, fr airbags, c/c. 110 mi. \$2,500/neg. 473-8958.

95 GEO PRIZM - runs v.well, 31+ mi/gal, a/t, a/c, p/s, face plate cd/fm, 83K mi. \$2,200/neg. Andy, hkw@bnl.gov/Ext. 4357.

95 FORD EXPLORER XLT - 4wd, a/c, cd, c/ c, hitch, abs, prem. tires w/ extra set, more. 194K mi. \$2,600/neg. 516-924-4299.

RAMPS - alum. ladder-type, 8', set of 2, light weight, used once, \$65. 878-0898.

Audio, Video & Computers

CHARGER - for older Motorola Startac phones, \$5. Ext. 3621.

DELL OPTIPLEX GX100 - older computer, gd. for DIY or Linux project, sm. form factor, no OS installed, \$15. Ext. 3621.

SYNTHESIZER - Korg M3R MIDI module, gd. for all types of sounds from piano to synthetic, incl. manual, \$150. Ext. 3621.

TV AND RF MODULATOR - old 26" Sanyo TV w/rem., \$40, audio/video RF modulator, \$10. Ext. 7066 or 344-1051.

Furnishings & Appliances

AIR COND - 7800 Btu Panasonic wndw a/c, incl. thru-the-wall case, 10 yr., excel. cond. stored indr. ea. winter, \$50/obo. Ext. 8041.

AREA RUG - 11 1/2'x8 1/2', beige w/muted floral dsgn.; French 6-pc. dining set, buffet, 4 chs., 48" table, 64" w/lf., 236-5578.

BAR CHAIRS - 2, gd cond. \$15; bureau-console, 19x74, 9 drws, \$25; 1, 3 drw end tble, 19x34, both solid wd, \$25. Ext. 7647.

BARREL CHAIRS - 2, custom, swivel, beige edged w/gold braided trim & fringed skirt, will email pics. 236-5578.

CHAIR - wing, beige w/gold & green flecks, gd. cond., must pk up, \$75. Ext. 7647.

DINING SET - oval dk cherry table, lf, 6 cushnd chs, lighted glass hutch, shelves, cabinet \$450/obo. Ext. 7496 or 828-8509.

KENMORE IN-WALL AC UNIT - 13000 Btu, 110V AC for in-wall mounting, excel. cond., rem contrl, \$50., Ext. 7451.

PIANO - upright, needs tuning, can help move, now \$600. Ext. 3924 or 286-1018.

TABLE - Formica, 36" diam., almond, 2 just covered matching chrs, \$85. 878-0898.

Sports, Hobbies & Pets

BEAGLES - 9 mo., black, brown and white, b/o. Mike, 655-4457.

BOOKS - 6th and 7th Harry Potter hard-cover bks., excel cond., \$10/ea. lheady@bnl.gov. Lindsey, Ext. 2728.

CELLO - great cond. c 1950s, full size in-str. w/new case, \$5700. Ext. 4475.

GOLF CLUBS - w/ bags, call for details/ price. Chris, Ext. 2094 or 831-3469.

GOLF CLUBS - full set, 1 yr., bag incl., \$40. Lim-Seok, Ext. 3720.

MAH JONGG SET - excel. cond., incl. extra tiles, \$50/neg Steven, Ext. 5694.

Tools, House & Garden

GRANITE SURFACE PLATE - 12" x 18", \$20. Ken, Ext. 7625 or 331-9056.

KITCHEN SET - oak, table top 3'x 5' and 4 rattan chairs, \$70. Leo, Ext. 3103.

TABLE SCROLL SAW - Delta, \$50. Chris, Ext. 2094 or 831-3469.

Miscellaneous

ART & DRAWING TABLE - top 42" x 31", wood finish, angle and height adjustable, ask/\$40. 698-5677.

JJIMMY BUFFETT TICKETS - 9/20, front Row: Sec 103 Row A, Seats 1&2 or 3&4 \$200/ea. email: kanecomp@optonline.net Karen, 236-2465.

TICKETS - 4, Yankees vs. Toronto, Sat. 9/22, 1:05 p.m., \$20/ea. Ext. 4656.

TICKETS - Tchaikovsky violin concert, Sym. #4, 10/6, 8 p.m., 2nd tier ctr., \$65. 929-4488.

TICKETS - 2 for Yankees vs. Baltimore, Tue. 9/18, 7:05 p.m. Box 652, Row E., \$20/ea. Andrea, Ext. 4656.

WATCH BATTERIES - replaced on in-stck batt, drop off @ noon, pick up @ noon, Sept. special start @ \$. 513-9106.

WEDDING DRESS - new, size 10, orig/\$1350, ask/\$250. Ext. 3621.

WOOD SHED - 8x8, new, all 2x4 const. flr, 4'wide drs. on treated 4x4, 25 yr. shingles any color, \$1,200 delivered. 878-1178.

Wanted

APT OR CONDO - Fully furn 1 or 2 bdrm for lab prof. Must be clean, reasonably priced, utils incl. Ext. 2431 or 865-924-9172.

CANOE - preferably aluminum, will pick up. Mark, Ext. 3172 or 365-9822.

GERMAN SPEAKING KIDS - 2-15, to practice speaking, reading, writing at the Deutsche Sprachschule, LI. 929-0043.

HOUSEMATE - to share a 2 br. cottage, 15 min. to BNL, lg. bdrm, l/r, kit., big yd., shed., \$750. 278-9393.

INDIVIDUALS - interested in starting a singles club on site. Kim, Ext. 7465.

REFRIGERATOR - any color, any size. Pat, Ext. 3536.

STEEL SHED - decent cond., I will remove. Chris, Ext. 2094 or 831-3469.

Free

CAT - lg haired male, healthy, declawed, neutered, urgently needs gd. home, we're relocatg, dogs ok, cats no. 516-924-6238.

KITTENS - males, 1 black, 1 striped, Vet checked/shots, house trained, need a home. Barbara, 928-8112.

DINING ROOM TABLE - free w/stand, glass, very heavy, located in basement, you pick-up. Linda, Ext. 2383.

PRINTER - HP deskject 600C, Yamaha computer spkrs., . Susan, 331-5642.

YOU PICK UP - baby pack, carrier, walker, high chair & play pen, weight bench set w/weights. Samantha, 744-6910.

For Rent

CENTER MORICHES - 1 bdrm., full bath, kit., avail. immed. \$750/mo. 708-5268.

E PATCHOGUE - 1 bdrm. apt. l/r, kit, bath priv. ent. short walk to water, heat/water incl., 1 mo/sec. \$950/mo. 484-2990.

FARMINGVILLE - studio, furn., priv. ent., bath, loft, eik, l/r, prkg., no pets, single, 1 mo. rent/sec., \$675/mo. all. 698-4882.

RIDGE - lg. 1 bdrm. apt., l/r w/fp, spiral stair to master suite, 5 min. to Lab, util. incl., no pets. \$1,200/mo. Ext. 4720.

ROCKY POINT - fully furn. 2 bdrm., 1 bath, lg. lr w/fp, deck, 15 min to Lab, heat, elec. incl., ref. req. \$1,500/mo. 718-746-3987.

SHIRLEY - 1 rm., microwave kitnet, furn, full bath, sep. ent., tv, elect, cable, wireless int., heat, all incl, 5 min to stores/beach, 15 to Lab, 1 mo/sec., \$600/mo., Ext. 8321.

SHIRLEY - 3 bdrm., 1.5 bath, 2 car gar., screen rm., fenced yd., bsmt., lr dr., 10 min to Lab. \$1,750/mo. Ext. 2982 or 909-3156.

SHIRLEY - 1 rm., stove kitnet, furn., full bath, sep ent., tv, elect., cable wireless int., all incl., 5 min. to stores/beach., 15 to Lab., no smkg/pets., \$650/mo. Ext. 8321.

SHOREHAM - 1 part. furn. bdrm, share house w/prof., 7 mi. to BNL, i'net/tv incl., no smkg/pets, sing. pref. \$600/mo. 413-1966.

WADING RIVER - pvt. house, 1-2 bdrm., fenced yd., walk to beach, shed for storage, 1 mo. sec., & util. \$1,200/mo. 886-1545.

For Sale

BELLPORT - 4-BR. ranch, 2 bth, dble f/p, l/r & den, d/r, eik, oak flrs, scrnd deck, laundry, fin. bsmt: w/4th BR, bar, full bth, 2 rms; gar., sheds, l/g sprinkrs. \$425,000; 949-7797.

BLUE POINT - Col., 5-bdrm. or potential m/daughter, 2 bath, l/r, d/r, kit., bsmt./crawl space, porch, 1.5 car gar., fen. yd. \$449,000/neg. Ext. 5025 or 286-1540.

PATCHOGUE - 13 rm. Victorian house, w/ all bells & whistles! 6 bdrms., 3.5 baths, 2 car gar., full bsmt., Cvac, alarm, Su \$699,999/neg. 236-2346.

SHOREHAM - 4 bdrm., 2.5 bath Col., l/r, d/r, lg. kit. w/bkfst nook, den w/fp, 2 car gar., fin. bsmt, igs, more, \$569,000/neg. 821-3320.

W. PALM BEACH - 1 bdrm. condo, renov, cabinets etc. \$465,000. 516-375-7330.

Happenings

G. HUGHES RETIRING - After 39 years, George is moving on. Here at 348, we are going to miss him dearly. Good Luck George! Deborah, Ext. 3120.

In Appreciation

I would like to express my appreciation and gratitude to my staff services co-workers John Hale, Sandra Harris and Michael Lewis. A special thank you to the BNL ambulance and Fire Department. I will be forever grateful for all that was done for me. — Susan Santana

The family of Frances Ligon would like to express their sincere gratitude for the outpouring of sympathy from the BNL community. Funeral services will be held at 10 a.m., Thursday, 9/20, at Riverhead United Methodist Church, 204 E. Main St. The interment will be at Riverhead Cemetary, Roanoke Avenue. Immediately following the services, we will return to the United Methodist Church for a repast. If you would like to contribute to a group donation from BNL, contact April Gray, Ext. 2459, Bldg. 400D. Personal condolences may be sent to Mr. John Ligon, P.O. Box 792, Riverhead, NY 11901. Please call Marilyn Winter, 774-2897, for information on food donations. Flowers may be sent to Reginald H. Tuthill Funeral Home, Inc., 406 E. Main St, Riverhead, NY 11901. — The Family of Frances Ligon

Service Ads

Available at <http://intranet.bnl.gov/ads/displayAdsAll.asp> on the intranet homepage on site. Or request from bulletin@bnl.gov or phone Liz Seubert, 344-2346.